

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the above-identified application:

Listing of Claims

Claim 1 (Currently Amended): An image retrieval apparatus for retrieving a desired image from a plurality of stored images, comprising:

storage means for storing the plurality of images and image features of each of the plurality of images in a form correlated with the images, wherein the image features of each image include image features of tiles obtained by dividing an image into a predetermined number of tiles;

feature calculation means for dividing a retrieval source image into the predetermined number of tiles and calculating image features of a retrieval source image for every tile;

acquisition means for generating image features by multiplying each of the image features of the plurality of tiles that have been stored in said storage means, by a constant, and acquiring plural sets of image features regarding one image by varying the constant; and

retrieval means for performing image retrieval by calculating degree of similarity between each of the plurality of images and the retrieval source image based upon the plural sets of image features acquired by the acquisition means and the image features calculated by the feature calculation means, wherein said retrieval means calculates degree of similarity between each image that has been stored in said storage means and the retrieval-source image using the plural sets of image features acquired by said acquisition means, and adopts maximum degree of similarity as the degree of similarity between a particular image and the retrieval-source image.

Claim 2 (Previously Presented): The apparatus according to claim 1, wherein said acquisition means generates N sets of image features by multiplying a luminance component of the image features that have been stored in said storage means by N constants.

Claim 3 (Previously Presented): The apparatus according to claim 1, wherein said acquisition means generates N sets of image features by multiplying a color-difference component of the image features that have been stored in said storage means by N constants.

Claim 4-6 (Canceled).

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Claim 7 (Previously Presented): The apparatus according to claim 1, wherein said acquisition means has specifying means for allowing an operator to specify number of steps over which the constant is varied as well as the amount of change provided by each step.

Claim 8 (Previously Presented): An image retrieval apparatus for retrieving a desired image from a plurality of stored images, comprising:

storage means for storing the plurality of images and image features of each of the plurality of images in a form correlated with the images, wherein the image features have been acquired for each one of tiles obtained by dividing an image into a predetermined number of tiles;

feature calculation means for dividing a retrieval-source image into a predetermined number of tiles and calculating image features for every tile;

acquisition means for acquiring, with regard to each of the plurality of images that have been stored in said storage means, new image features by multiplying image features by a constant that differs for every tile; and

retrieval means for performing image retrieval by calculating degree of similarity between each of the plurality of images and the retrieval source image based upon the image

features acquired by said acquisition means and the image features calculated by said feature calculation means.

Claim 9 (Previously presented): An image retrieval method for retrieving a desired image from storage means storing a plurality of images and image features of each of the plurality of images in a form correlated with the images, wherein the image features of each image include image features of tiles obtained by dividing an image into a predetermined number of tiles, said image retrieval method comprising:

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a feature calculation step of dividing a retrieval source into the predetermined number of tiles and calculating image features of a retrieval source image for every tile ;

an acquisition step of generating image features by multiplying each of the image features of the plurality of tiles that have been stored in the storage means, by a constant, and acquiring plural sets of image features regarding one image by varying the constant; and

a retrieval step of performing image retrieval by calculating degree of similarity between each of the plurality of images and the retrieval source image based upon the plural sets of image features acquired at said acquisition step and the image features calculated at said feature calculation step, wherein said retrieval step calculates degree of similarity between each image that has been stored in said storage means and the retrieval-source image using the plural sets of image features acquired in said acquisition step, and adopts maximum degree of similarity as the degree of similarity between a particular image and the retrieval-source image.

Claim 10 (Previously Presented): The method according to claim 9, wherein said acquisition step generates N sets of image features by multiplying a luminance component of the image features that have been stored in the storage means by N constants.

Claim 11 (Previously Presented): The method according to claim 9, wherein said acquisition step generates N sets of image features by multiplying a color-difference component of the image features that have been stored in said storage means by N constants.

Claims 12-14 (Cancelled).

Claim 15 (Previously Presented): The method according to claim 9, wherein said acquisition step includes a specifying step of allowing an operator to specify number of steps over which the constant is varied as well as the amount of change provided by each step.

Claim 16 (Previously Presented): An image retrieval method for retrieving a desired image from a plurality of stored images, comprising:

a storage step of storing the plurality of images and image features of each of the plurality of images in a form correlated with the images, wherein the image features have been acquired for each one of tiles obtained by dividing an image into a predetermined number of tiles;

a feature calculation step of dividing a retrieval-source image into a predetermined number of tiles and calculating image features for every tile;

an acquisition step of acquiring, with regard to each of the plurality of images that have been stored at said storage step, new image features by multiplying image features by a constant that differs for every tile; and

a retrieval step of performing image retrieval by calculating degree of similarity between each of the plurality of images and the retrieval source image based upon the image features acquired at said acquisition step and the image features calculated at said feature calculation step.

Claim 17 (Previously presented): A storage medium storing a control program for causing a computer to execute image retrieval processing for retrieving a desired image from storage means storing a plurality of images and image features of each of the plurality of images in a form correlated with the images, wherein the image features of each image include image features of tiles obtained by dividing an image into a predetermined number of tiles, said control program comprising:

code of a feature calculation step of dividing a retrieval source image into the predetermined number of tiles and calculating image features of a retrieval source image for every tile;

code of an acquisition step of generating image features by multiplying each of the image features of the plurality of tiles that have been stored in the storage means, by a constant, and acquiring plural sets of image features regarding one image by varying the constant; and

code of a retrieval step of performing image retrieval by calculating degree of similarity between each of the plurality of images and the retrieval source image based upon the plural sets of image features acquired at said acquisition step and the image features calculated at said feature calculation step, wherein said retrieval step calculates degree of similarity between each image that has been stored in said storage means and the retrieval-source image using the plural sets of image features acquired in said acquisition step, and adopts maximum degree of similarity as the degree of similarity between a particular image and the retrieval-source image.

Claim 18 (Previously presented): A control program for causing a computer to execute image retrieval processing for retrieving a desired image from storage means storing a plurality of images and image features of each of the plurality of images in a form correlated with the images, said control program comprising:

code of a feature calculation step of calculating image features of a retrieval source image;

code of an acquisition step of generating image features by multiplying the image features that have been stored in the storage means, by a constant, and acquiring plural sets of image features regarding one image by varying the constant; and

code of a retrieval step of performing image retrieval by calculating degree of similarity between each of the plurality of images and the retrieval source image based upon the plural sets of image features acquired at said acquisition step and the image features calculated at said feature calculation step.